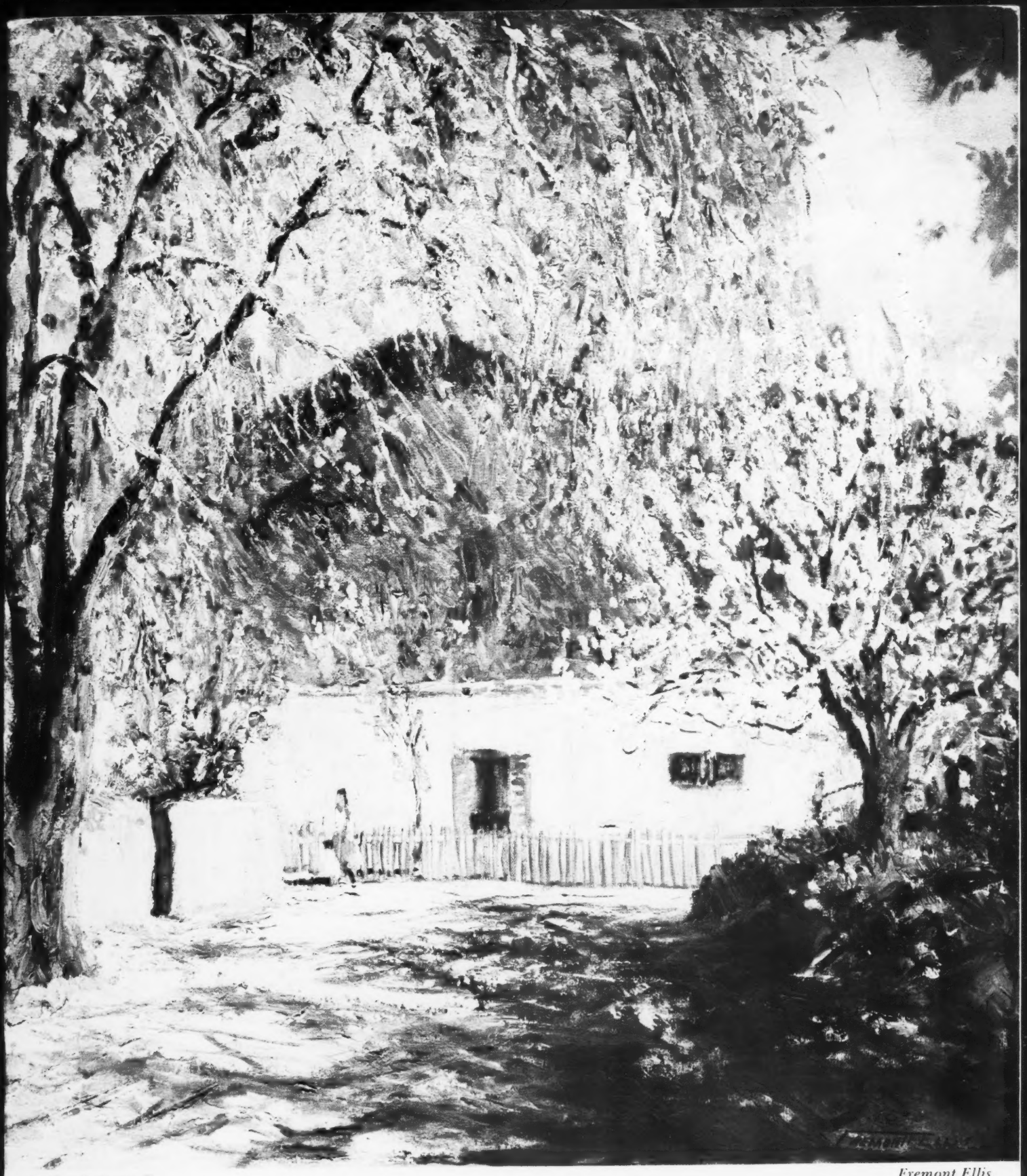
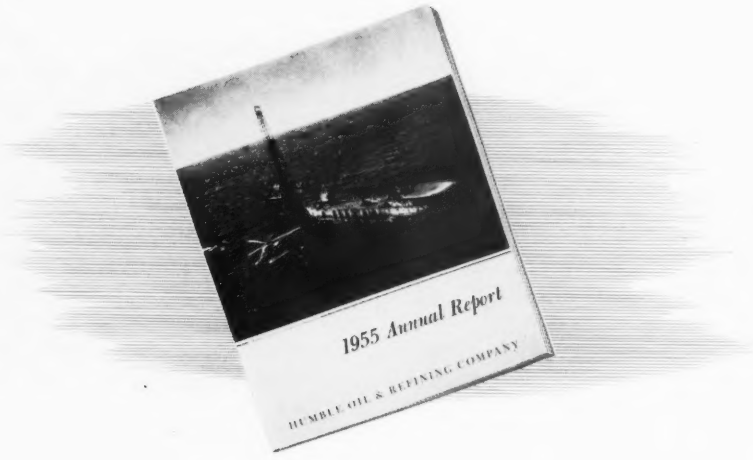


Spring in Santa Fe — *Fremont Ellis*

The Humble Way

MARCH-APRIL, 1956

The Humble Way
March-April, 1956
Vol. XI No. 6



Annual Report for 1955 Reflects Risks, Rising Costs

THE high cost of staying in business is emphasized throughout Humble's Annual Report for 1955, mailed in mid-April to shareholders and employees. These costs increase with each passing year, and add to the great risks inherent in replacing production with new reserves.

Last year, these costs increased substantially, particularly the costs of acquiring leases, exploring for oil, and drilling to discover and develop new reserves. Following the trend established in recent years, capital expenditures and investments in the business advanced more rapidly than demand for oil or net income from oil operations. As a result of this trend, the rate of return on domestic petroleum operations has been downward.

Some interesting and significant facts are brought to light by comparing changes in net income, shareholders' investment and capital expenditures in recent years. Last year, net income was $174,997,000, or $4.88 a share. That was a marked gain over 1954, when income was lower because of a decline in operations. But it was only moderately higher than in 1953 and 1951; only $5,500,000 more, in fact, than in 1951.

By way of contrast, with the 3 per cent gain in income since 1951, the Annual Report notes that the shareholders' investment in Humble has increased nearly $300,000,000 or 35 per cent. Furthermore, capital expenditures in 1955 were $210,419,900, an increase of nearly one-third compared with the capital investments of $158,793,800 in 1951. In the past five years, capital expenditures have amounted to $840,000,000, and in addition $375,000,000 was spent on exploration work and dry holes in the search for new reserves.

Total assets of the Company stood at $1,323,200,000 by the end of 1955. Such a large figure is difficult to grasp, but its significance becomes apparent in relation to Humble's 18,729 employees. It means that assets of $67,000 are essential to provide work for the average Humble employee. That average employee would have to set aside 10 per cent of his pay in 1955 for the next 114 years to accumulate the assets that shareholders provide for him to use in working with Humble! Incidentally, the investment per employee is now nearly three times as much as ten years ago!

Operating costs moved upward practically everywhere along the line during 1955. Increased costs were evident in materials purchased, in rates of pay, in taxes, and in all operations. Most important of all were the substantial increases in lease costs and costs of wells drilled.

In 1955, Humble spent $46,218,000 on lease purchases—more than double the average amount spent in the last four years. The Company drilled 857 wells during the year at an average cost of $130,500 per well—nearly 60 per cent more than the average cost per well in 1950 *and five times the*

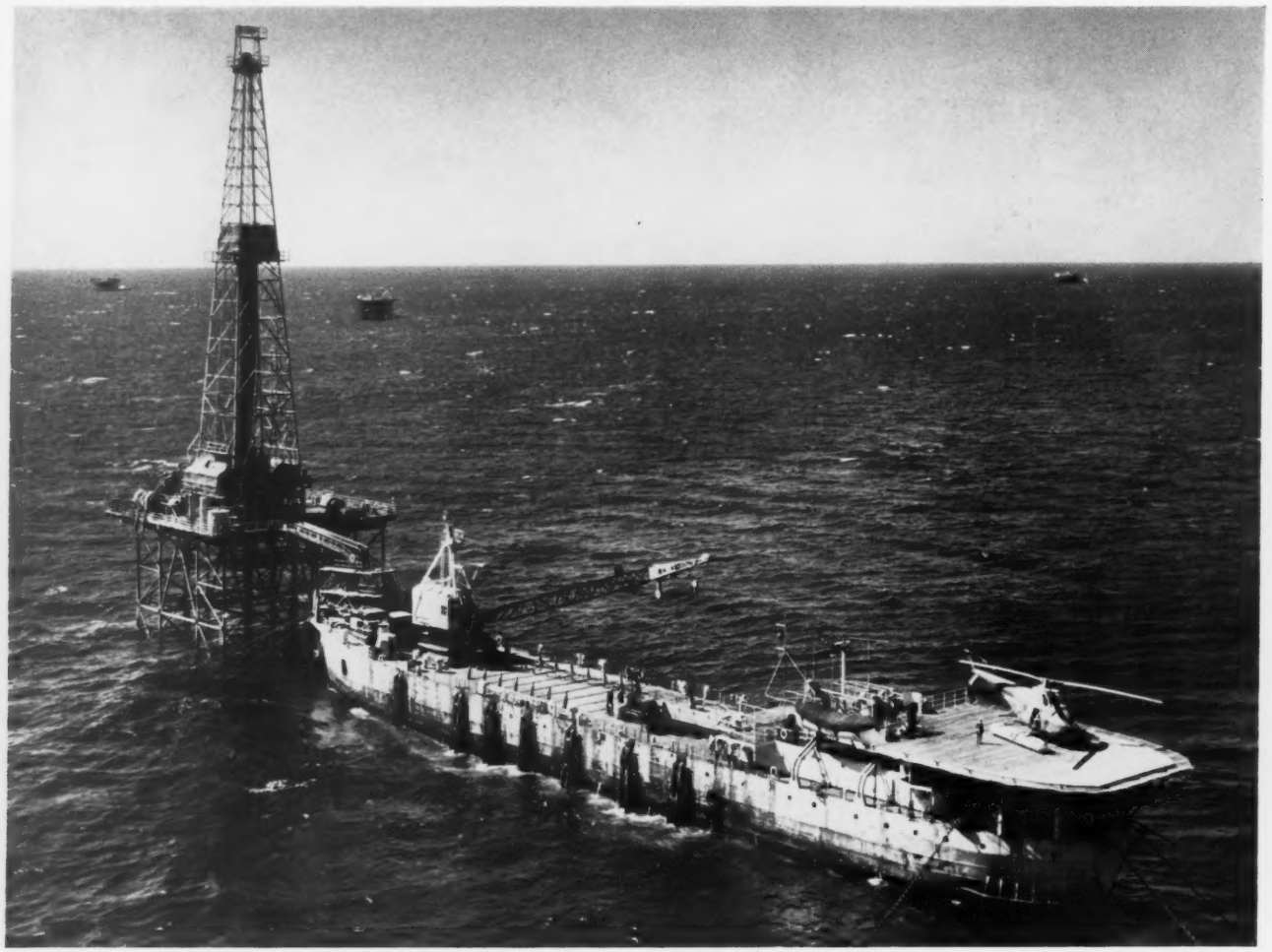
Clinging to the tip of Grand Isle, on Louisiana coast, are Humble's facilities in foreground. At top is Barataria Bay. Gulf of Mexico is reached through the pass at the upper right.

average well cost in 1940. Deeper and more difficult drilling, particularly offshore in the Gulf of Mexico and in the swamps and marshes of Louisiana, accounts for this great increase in drilling costs. Taken together, increased costs of exploration and drilling mean that current replacement costs on a barrel of oil are considerably higher than on reserves accumulated in the past.

In their letter to shareholders, which accompanied the 1955 Annual Report, Humble President Hines H. Baker and J. A. Neath, Chairman of the Board of Directors, pointed out that the large amount of reserve producing capacity being maintained is a real burden on producers in terms of higher investment and operating costs per barrel of production. They estimated that in 1955 Humble's production could have exceeded actual output by about 230,000 barrels per day at the maximum efficient rate.

Humble, like other producers of natural gas, is keenly aware of a striking new risk that has been added recently for producers selling gas to interstate pipe lines. This risk lies in the uncertainty and confusion as to the price producers will realize on such sales. The following excerpt from the Annual Report's letter to shareholders summarizes the uncertainty caused by the natural gas situation and points up the real need for an early solution to the problem.

"A striking risk arises out of the Supreme Court decision in the *Phillips* case and the recent veto by the President of the Harris-Fulbright bill enacted by Congress. In this situation, the producer of natural gas is left in doubt as to the price that may be realized from gas sold to interstate pipelines, since the price of such gas is subject to regulation by the Federal Power Commission as though the producer were a public utility. The legislation would have permitted the producer to realize competitively determined prices on such sales. The President's veto was not based on the merits of the legislation, but on other grounds. Fortunately, the legislation is considered in the public interest not only by Con-



Offshore work is costly. By the end of 1955, expenditures on offshore dry holes amounted to $17,596,000. In January, 1956, one dry hole off the Texas coast cost $1,411,000; three dry holes drilled off the Louisiana coast cost Humble $1,437,000.

with new reserves become greater every year."

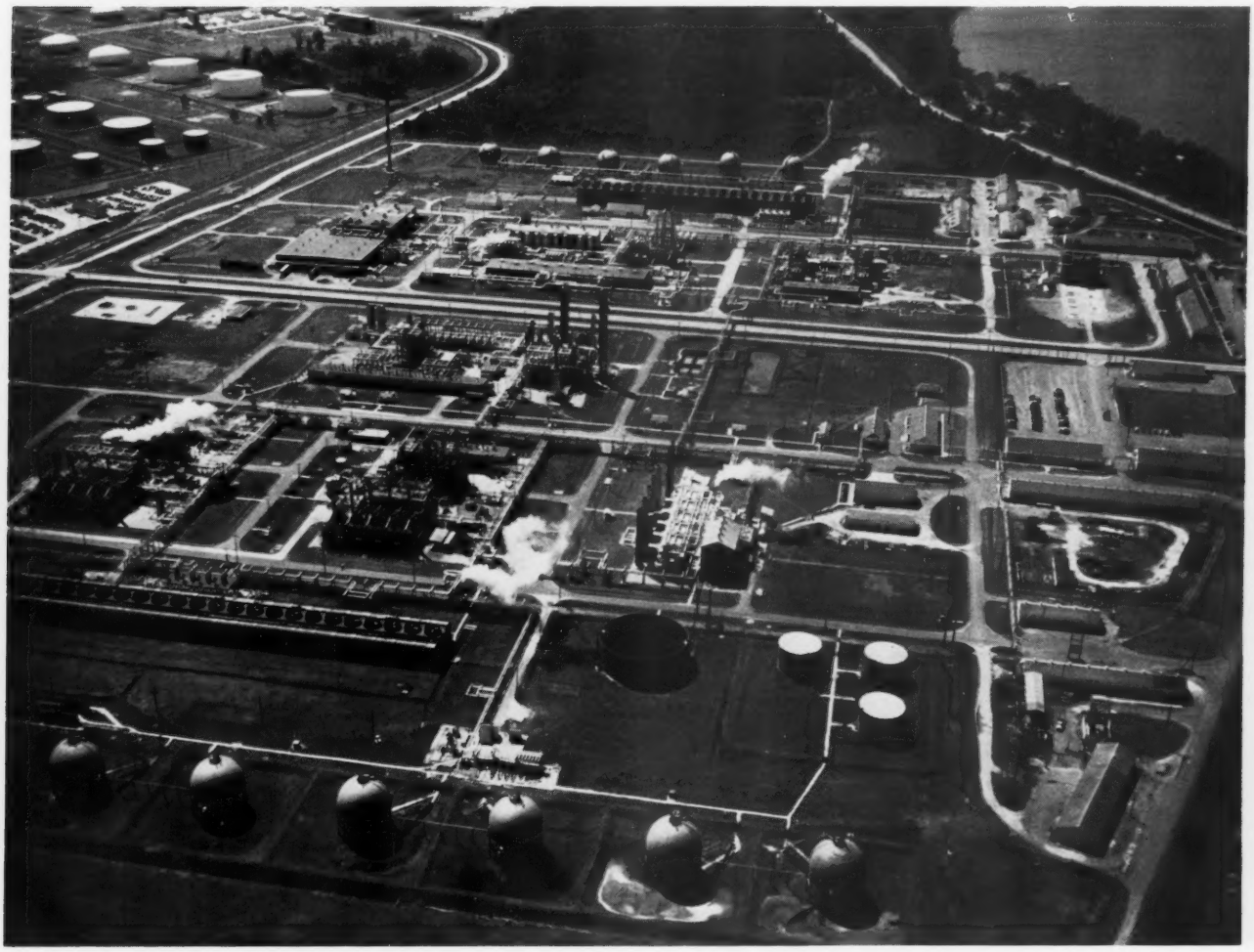
gress but also by the President and his cabinet committee which studied the matter. Under the present circumstances, initiative and incentive to explore for and develop new natural gas reserves are greatly discouraged. The producers of necessity are loath to market their gas in interstate commerce, and consumers will be deprived of greatly desired quantities of gas to meet present and future needs. A state of doubt, uncertainty, and confusion exists in the entire natural gas industry. If this situation is to be corrected, the President must take the initiative in efforts to secure the enactment by Congress of appropriate legislation."

Among other important developments during the year was one made possible by enactment of a new Business Corporation Act by the State of Texas during 1955. Under terms of this Act, Humble thought it wise to broaden the activities in which the Company can engage under its articles of incorporation. Accordingly, at a special meeting held in October, the shareholders voted to broaden the scope of activities in which the Humble Company can engage and to increase the number of authorized shares of stock by an additional two million shares for use in the business undertakings of the Company.

Under Humble's charter as amended, the Company may develop and utilize all the natural resources that may be searched for and found in connection with petroleum operations, including sulphur. It also provides that Humble can "acquire, produce, manufacture and market all sorts of chemicals," and that it may conduct fundamental and applied research.

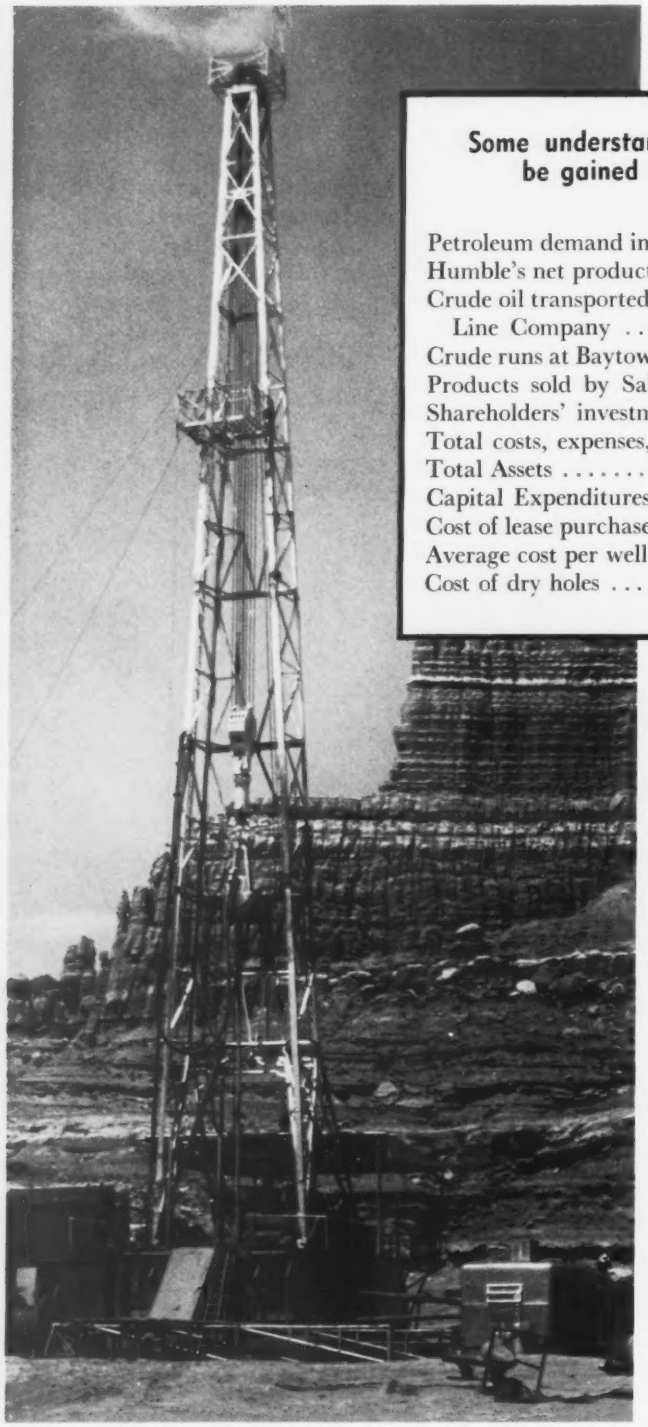
Humble's Annual Report for 1955 tells the story of another year of achievement and progress in the face of increasing risks and rising costs. The challenge of increased demand was successfully met. Increased facilities, provided by shareholder investment, were used effectively by a trained organization displaying a splendid spirit of cooperation.

And what of the future? Hines H. Baker and J. A. Neath



Capital expenditures in Refining were at a record level in 1955, including $17,600,000 for purchase in April of the Butyl plant and $9,000,000 for the butadiene plant. Both plants were formerly operated at Baytown by Humble for the government.

"Despite increasing risks and costs, Humble plans to continue an aggressive program of exploration and capital expenditures . . ."



During 1955, Humble completed 857 wells at an average cost of $130,500. Shown above is the first well completed in Arizona.

Some understanding of Company activities during 1955 may be gained by a brief look at these facts and figures:

	Compared with 1954	
Petroleum demand in the United States	Up 655,000 B/D	8.4%
Humble's net production of crude oil	Up 24,500 B/D	7.4%
Crude oil transported by Humble Pipe Line Company	Up 40,200 B/D	6.7%
Crude runs at Baytown Refinery	Up 19,300 B/D	8.4%
Products sold by Sales Department	Up 38,000,000 gallons	5.3%
Shareholders' investment	Up $90,943,000	8.5%
Total costs, expenses, and taxes	Up $64,012,000	7.6%
Total Assets	Up $78,146,000	6.3%
Capital Expenditures	Up $49,269,000	30.6%
Cost of lease purchases	Up $19,233,000	70.6%
Average cost per well	Up $19,500	17.6%
Cost of dry holes	Up $2,919,000	8.3%

had something to say about that also in their letter which opened the Annual Report:

"Despite increasing risks and costs, Humble plans to continue an aggressive program of exploration and capital expenditures in the belief that such enterprise is necessary to meet the tremendous demands for oil and gas foreseeable over the next ten to twenty years. The difficulties and growing risk of losses inescapable in exploring for and developing petroleum must be faced and overcome in order to meet the steadily rising demands for oil and gas by the American people. This can be done only if market prices respond to changing conditions in the domestic industry and if the long-established and reasonable tax provisions applicable to petroleum production in recognition of the peculiar risks of the business are continued in effect. The Humble organization believes that it can operate successfully in these circumstances and in so doing serve well the interests of consumers, shareholders, and employees. It continues to add to reserves of oil and gas, even though at higher cost than in the past, and anticipates success in increasing reserves in the future.

"As the demand for oil and gas increases in the years ahead, Humble's experience and organization should enable it to perform a vital and useful role in the future as in the past. The joint efforts of the investors who dedicate their capital and the employees who devote their efforts to this important enterprise should continue to enable achievement of advantageous results for all concerned. The directors sincerely appreciate these efforts and express their thanks."

Big Barge Goes to Work

With two powerful cranes mounted on its broad deck, Humble Derrick Barge No. 1 can save time in platform construction

HUMBLE'S new construction barge —gargantuan in size and herculean in lifting power—has now started earning its keep in the Company's marine operations off the coast of Louisiana at Grand Isle.

Designed by Humble's marine engineers to help speed up offshore construction projects, the giant barge was built in the Beaumont shipyards of Bethlehem Steel Company. Early in March, five months after the hull was launched,* the vessel was completed and delivered, fully-equipped and ready for work. It was towed immediately to Grand Isle, where it is being operated by a marine construction firm under contract to Humble.

Although the barge is as long as a city block (it measures 300 by 90 feet), and contains many unusual features (such as rubber-foam mattresses and central air conditioning for the crew's quarters), its greatest distinction is in the size and capacities of its hoisting equipment. This is the first construction barge to be seen in offshore operations with *two* cranes mounted on its deck.

And what cranes! One is a steam-powered giant capable of lifting a dead weight of 250 tons. Its boom measures 220 feet from heel to tip. In a vertical position, this boom would tower above the barge deck to about the height of a 22-story skyscraper. The other crane is smaller by comparison, but certainly not diminutive. It is electrically powered, has a lifting capacity of 45 tons, and a boom 115 feet long.

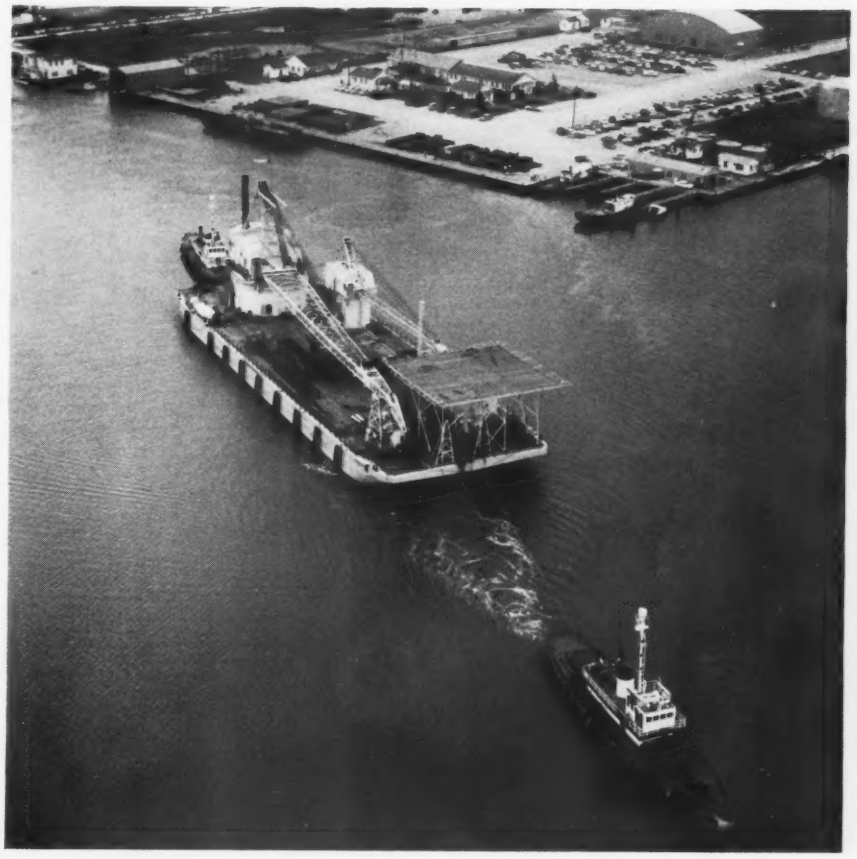
These two pieces of hoisting equipment give the Humble DB-1, as the barge is called, a unique advantage over any other construction barge now operating in Gulf waters. It can save valuable time in building and dismantling offshore stationary drilling platforms.

For example, the customary procedure in platform construction has been to build it at the site. Templates for the piling are made up on land and are barged to the location. Each template is then set in place, piles are driven, and the space between templates is bridged and floored. It is a time-consuming and costly procedure, especially when rough weather interferes.

With the DB-1, however, it will be possible to do more of the work on land and less at sea. The entire platform can be prefabricated in a few sections on shore. These large sections will be skidded onto a barge, and the big crane will set them off again at the offshore location. Even the pile-driving will be faster, because the long arm of the crane will permit driving all the pilings for an 80 by 90-foot platform without changing position of the barge. Also, the small crane can be picking up a new section of piling while the big crane is still driving other piles.

Up to now, the DB-1 has not had an opportunity to try out this "big lift" technique, but it will have in the near future. A prefabricated platform is now being built for this purpose.

Meantime, the barge is making itself generally useful around Grand Isle. On its first assignment there the DB-1



Coming in to Grand Isle to pick up the components of the platform it is to build offshore, Humble's Derrick Barge No. 1 is shepherded by two auxiliary cutters.

*See THE HUMBLE WAY, September-October, 1955.

Loading templates and other platform parts from shore to deck of barge is simple task with these two cranes to do the lifting. The smaller crane is positioned near the port side of the barge, which is designed as the working side, so that the 115-foot boom will have maximum reach beyond edge of deck.

Moving out to the offshore location, the loaded barge dwarfs boats and buildings along Grand Isle waterfront. Helicopter landing platform at forward end is 60 feet square and stands 30 feet above deck. As loaded here, barge draws about eight feet of water; it has a maximum load line of nearly 13 feet.

proved dramatically one of the advantages of its long and mighty "right arm." The site was an offshore platform, and the project was to set up a drilling rig. Normally, on a job like this, it takes four or five hours to set the crown block on top of the 136-foot derrick. The heavy block must be hoisted carefully up the derrick itself.

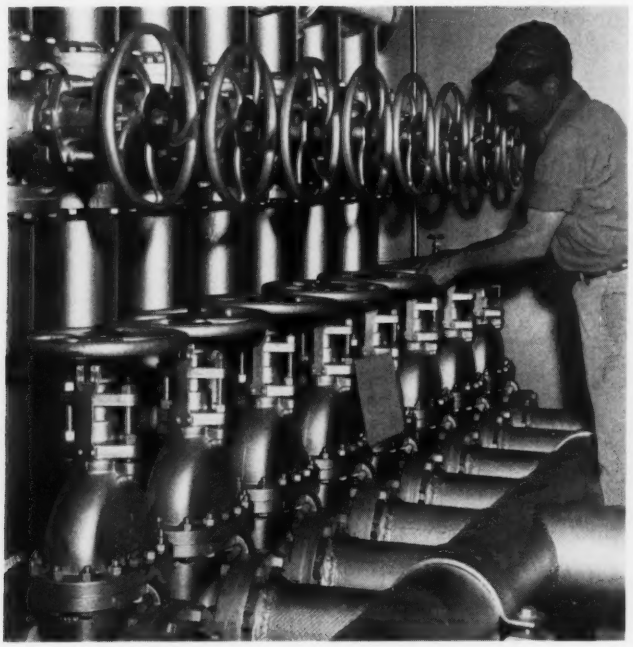
But this time, thanks to the tremendous reach of the barge's large crane, the crown block was completely installed in *25 minutes,* including rigging time. The crane simply picked it up, lifted it high, and set it gently into place.

Currently, the DB-1 is building a drilling platform in 50 feet of water at State Lease 804-K, in Block 16, about eight miles out of Grand Isle. While this is not a "big lift" job, and the platform was not prefabricated, it does give the crew a chance to become more familiar with their barge and equipment.

Here is the story-in-pictures of Humble's Derrick Barge No. 1 at work on this, its first platform construction job.

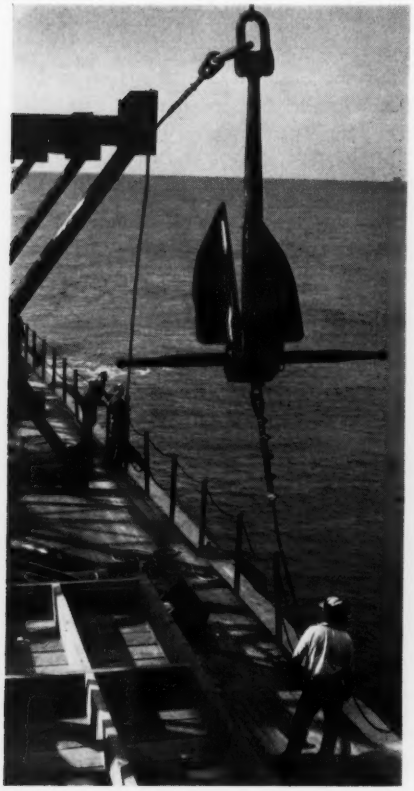
Enroute to the site, members of the barge crew continue their preparations for platform construction job ahead. Big pipe being worked on by welders in foreground will be used to drive mooring piles into the floor of the Gulf where they will secure drilling tender that will eventually serve this new platform.

Dining room, below main deck of the barge, is air-conditioned, light, and cheery. Meals are prepared in spotless galley and served cafeteria-style. Adjoining the dining room is a large recreation room equipped with television set, tables, and comfortable chairs. The big barge has accommodations for 58 men.

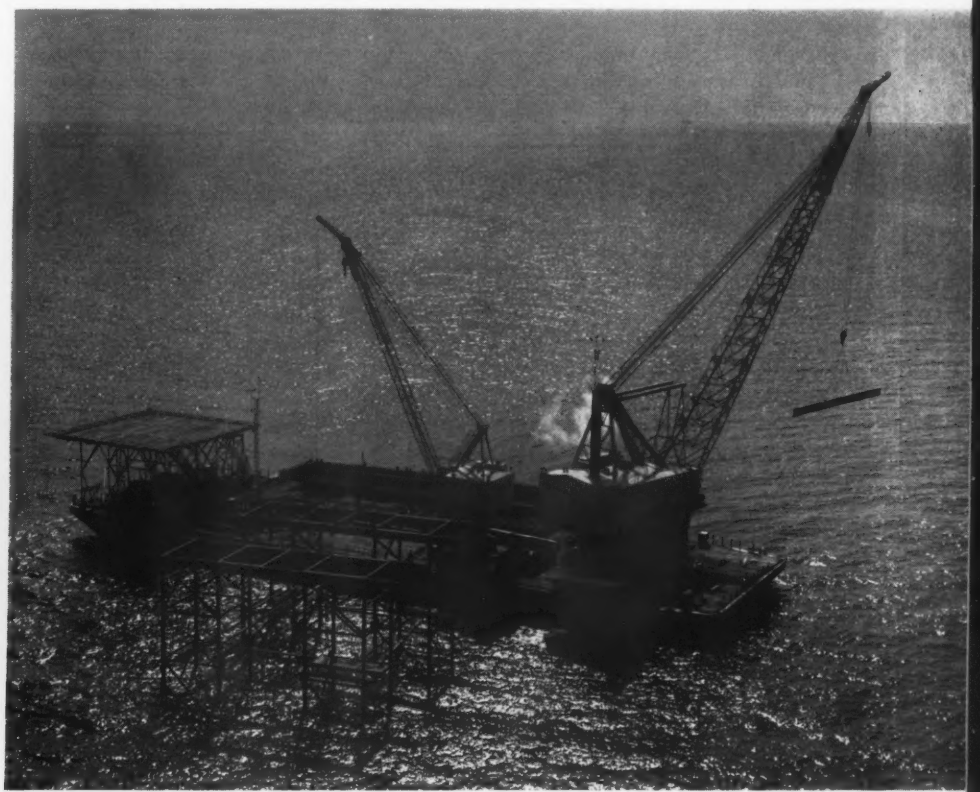


Ballast control valves are located on third deck level, along with pumps and other barge machinery. Equipment includes three electric generators, a vapor compression distillation unit, a 23-ton air conditioning unit, sidewalk-type freight elevator, and tanks big enough for six months' supply of fuel and water.

Nearing location where platform is to be built, the big barge rides smoothly in Gulf swells. Rake ends at bow and stern reduce towing resistance and help keep deck dry in heavy weather. Barge is designed for safety with 38 water-tight compartments; no manned areas below water line are against the outer skin.



Over side goes one of the anchors as the construction barge arrives on site where platform is to be built. This is one of eight anchors used to hold the barge in place while work proceeds.



Helicopter-view of the big barge at work shows both cranes in operation and the platform beginning to take shape. At this stage of construction, lower template sections have been set into place, the piling has been driven, upper templates have been added, and the steel framework is now being built to support platform deck. Six wells can be drilled from this 80 by 90 foot platform when completed.

CAMPAIGN AGAINST THE COMANCHES

On the Red River in Texas more than a century before Custer's last stand, Comanches and their allies crushed a Spanish Army

TURNING in his saddle, Diego Parrilla, war-wise colonel of Spanish troops, took one last look at San Antonio. There in the distance, the stately bell-tower of Mission San Jose thrust its magnificence above the pall of dust which clung like a yellow cloak about his cavalry.

Eyes squinting against the hot glare of the mid-August sun and lips compressed against the choking dust, Parrilla, like any good commander, thought of his men and the venture just begun. Behind him, in motley array, rode a relatively untrained and undisciplined "army" of 360 soldiers and about 175 Indian allies who hated the Comanches. The viceroy, by authorizing almost 60,000 *pesos* for the campaign, had made sure that those who took part in it were well provisioned. Two cannons rumbled heavily at the foot of the column.

Ahead of them was deadly work. Far to the north—not even their colonel knew how far—lurked the accursed *nortenos,* the fierce Comanches and other tribes. By now, those savages must have learned that a reprisal force was on its way to punish them for misdeeds and murders. How Parrilla had chafed at official delays which gave spies time to warn his enemies!

But no matter. Warned or no, the pagan dogs would be taught a lesson. It was one thing to sullenly resist the teachings of the True Faith. Wild as they were, the red warriors might even be expected to burn and plunder on occasion. But to murder priests of the Church, as they had done more than a year earlier at Mission San Saba de la Santa Cruz—that could not be tolerated! They would pay dearly for every martyr they had made there in 1758.

The way forward led first to the *presidio* of San Saba. Parrilla then fearlessly launched his forces northward into a wild and unknown part of Texas. The march, begun slowly at first, took on swifter pace as day followed dreary day with only the barest signs of Indian life—tracks here, an abandoned village there. It looked as if the quarry had fled. Like soldiers the world over, men began to grumble.

But fast action lay just ahead, more to a trooper's liking. On October 2, the Spaniards fell suddenly upon an unsuspecting Tonkawa village. Surprised, the Indians offered only token resistance, then broke before the fury of the attack. When the smoke had cleared and the tumult had died, 55 of the enemy lay dead; 149 were taken prisoner. Not a Spaniard was lost.

To Parrilla's surprise and personal satisfaction, some of the horses and mules taken in the battle bore his own brand! Some prisoners then admitted they had taken part in the San Saba massacre.

Parrilla now had a decision to make. Should he content himself with a glorious victory and return in triumph? Or should he proceed northward and add fresh laurels to his victor's crown?

He chose the latter course, partly (as he explained later) to explore new land and partly to make the Indian's defeat more decisive. His men, of course, set up an eager chorus to continue the chase.

It took only four days to convince Parrilla that he had made a bad decision. On October 6, his army drew near the Red River. At this place, Indians appeared to have banded together for a firm stand at a Taovayas village.*

A thick wood stood between the advancing army and its intended prey. As the Spaniards moved in, shortly before noon, a band of warriors broke from the thicket and made what appeared to be a lively charge. But after a brief skirmish, the savages withdrew as quickly as they had charged.

Sensing victory, a contingent of Parrilla's cavalry spurred in spirited fashion after the retreating redskins. And on the other side of the woods, the Spaniards met the surprise of their lives. Before them lay a large, open field. And at the far end stood not the usual Indian village but a well-built and sturdily defended stockade—a real fortress, measured by European standards. Around the stockade lay a deep moat filled with water. Above it, bristling like quills on a porcupine, swarmed scores of Indians, rifles loaded and at the ready!

Before the Spanish cavalry could beat a hasty retreat from the trap it had been led into, men and horses fell before a deadly fusillade from the fort.

When Parrilla and the main body drew up, fresh wonders added to the general astonishment. Floating above the strange fort waved the French flag! Inside the stockade, French drums and fifes joined Indian tom-toms to set up a nerve-wracking din.

Undaunted, Parrilla choked back his surprise and began,

Editor's Note: This is a sequel to "Massacre on the San Saba," which appeared in the November-December, 1955, issue. It is drawn from an account in *Our Catholic Heritage in Texas,* Vol. IV, by Dr. Carlos E. Castaneda.

* Near present Spanish Fort, Texas.

Attack on the Fort *E. M. Schiwetz*

in soldierly manner, to lay plans for a general attack. Choosing a combined assault in full force, he placed his veteran Spanish troops at the center of the assault wave, flanked them with his Indian allies, and hurled his army frontally across the field toward the fort.

It proved bad strategy. As his troops moved forward, Comanches and their Taovayas allies sallied forth to meet them. Under pressure of the counter attack, Parrilla's Indians wilted and withdrew, leaving both flanks exposed to murderous rushes.

In great waves the Comanches and Taovayas came, combining sound infantry tactics with swift, well-mounted, rifle-armed cavalry. When one wave faltered or drew back for freshly loaded rifles, another wave surged forward to press the attack. This, Parrilla could see to his consternation, was no ordinary Indian fight. The enemy's marksmanship on that day was even deadlier than the Spaniards'.

On into the afternoon raged the wild melee. Parrilla had a horse killed under him, then seized a riderless mount and rejoined the battle. At length, shot twice through his breastplate and wounded in one arm, he reluctantly left the field.

In the swirl of such a battle, Spanish artillery could not be used to good effect. The two cannons spoke not a dozen times; one exploded and grievously wounded a nearby officer. Other officers and men were fighting for their lives in desperate hand-to-hand encounters. When darkness brought an end to the battle and the Spaniards withdrew to the friendly cover of the woods, they had lost 52 men. The enemy, they estimated, had lost double that—but Parrilla's weary and wounded troops needed no military expert to tell them their case was hopeless. Before break of day, they trudged silently southward in full retreat. Luckily, the Comanches and their allies were content to let them go.

It had been a significantly costly, as well as a painful, campaign. After marching nearly two hundred leagues from San Saba, the Spaniards had failed to punish the Indians; had failed to impress them with Spanish might. They had also failed their Apache allies, who would no longer feel secure in any offer of Spanish protection. The King's treasury was poorer by 60,000 *pesos*. Worst of all, it was a cruel blow to Spanish mission hopes in Texas. And never again would the mere presence of Spanish troops bring reassurance to fear-stricken colonists.

Parrilla, to be sure, was heavily censured for failure of the campaign. But the fault was not entirely his, and he did not end his days in complete disgrace. After a call to Mexico City, he returned to Texas and explored Padre Island for the viceroy. Though he longed for another field command, none ever came. Even an appointment as Governor of Coahuila could never quite erase the memory of that bitter day on the Red River, when screaming Indians so decisively defeated his Spanish army.

Roswell business and civic leaders get acquainted with Humble officials at a luncheon sponsored by the Company.

Humble Expands Its MARKETING IN NEW MEXICO

Development program already underway as Company extends its network of service stations and bulk stations in new areas

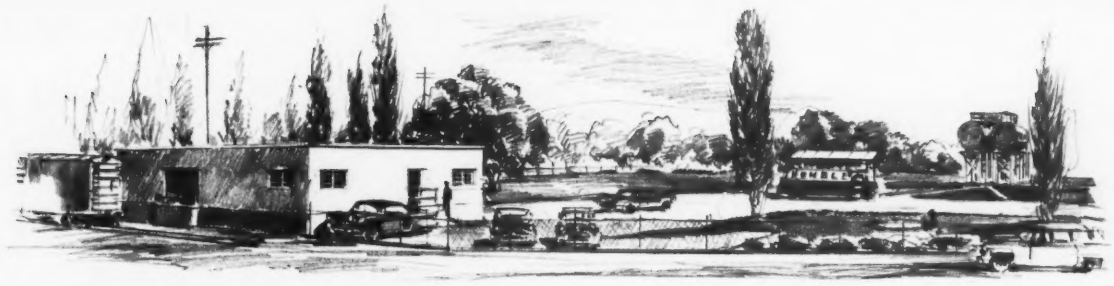
THE invitation to "stop for service under the Humble sign," long familiar to Texans, is now being extended with equal cordiality to motorists of New Mexico. And, to give substance to the invitation, Humble is building and opening new service stations along major highways and in leading towns of the state on a planned schedule which is being steadily carried out.

All this is part of a new long-range marketing expansion program which eventually will bring Humble service and products into virtually all areas of New Mexico. It is the Company's first effort toward a planned extension of sales operations outside the state of Texas. As Assistant Sales Manager Roy M. Stephens explained to a group of New Mexico business men: "New Mexico offers great opportunities to industry; it has a bright future. It is rich in history, and its industrial growth is just beginning. It is a frontier of business expansion."

Actually, Humble has had limited marketing operations in the southeastern corner of New Mexico since 1929. (Currently there are six Humble dealers in Lea County, at Hobbs, Lovington and Eunice.) But these stations are supplied from a Texas bulk station, and for all practical purposes have been considered a part of the West Texas marketing system.

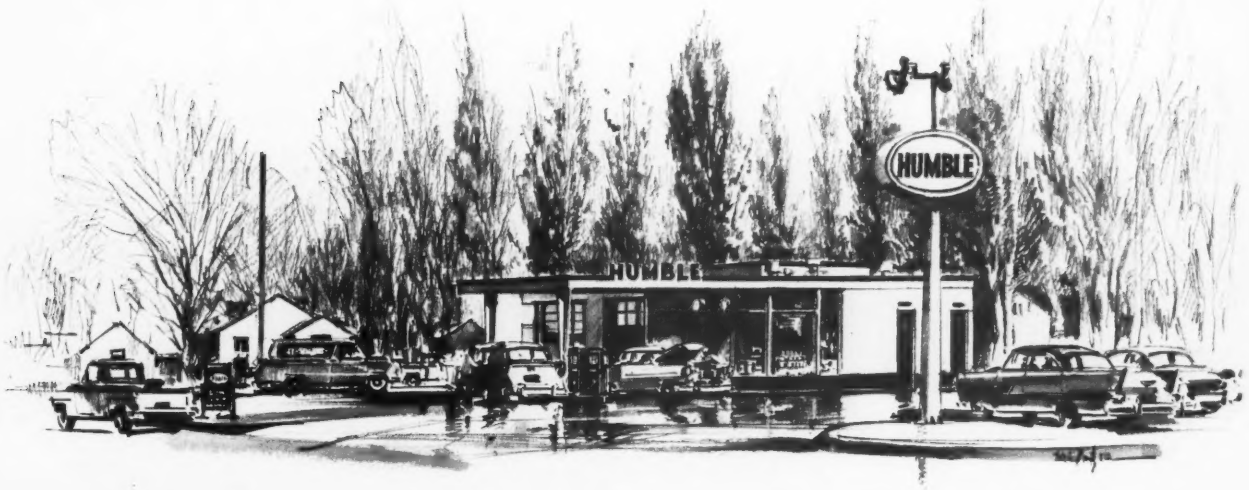
Now, however, an entirely new organization has been set up for Humble's expansion into other areas of the New Mexico market. Sales Department headquarters were established

(Continued on page 15)



Bulk Station at Roswell

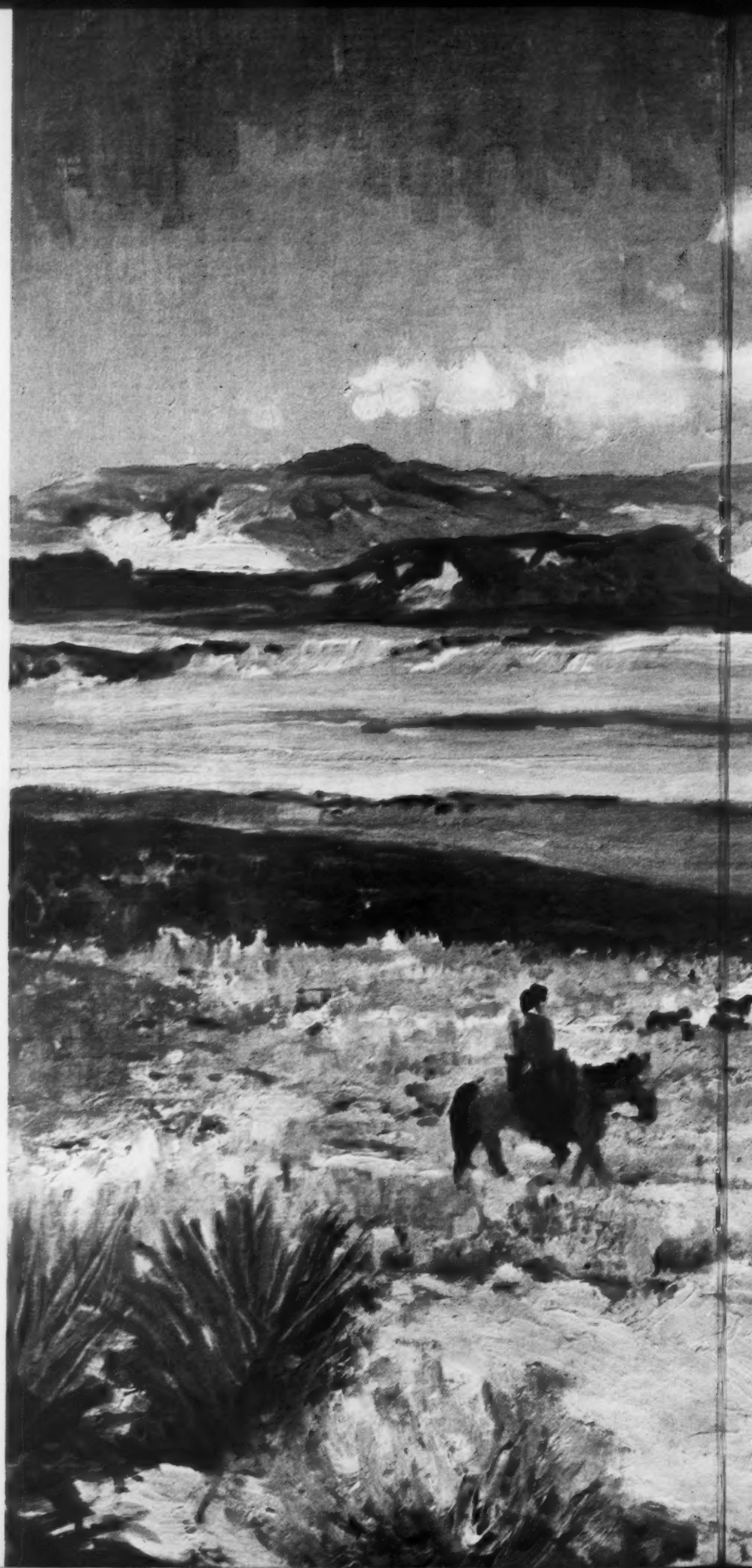
Training Station at Albuquerque

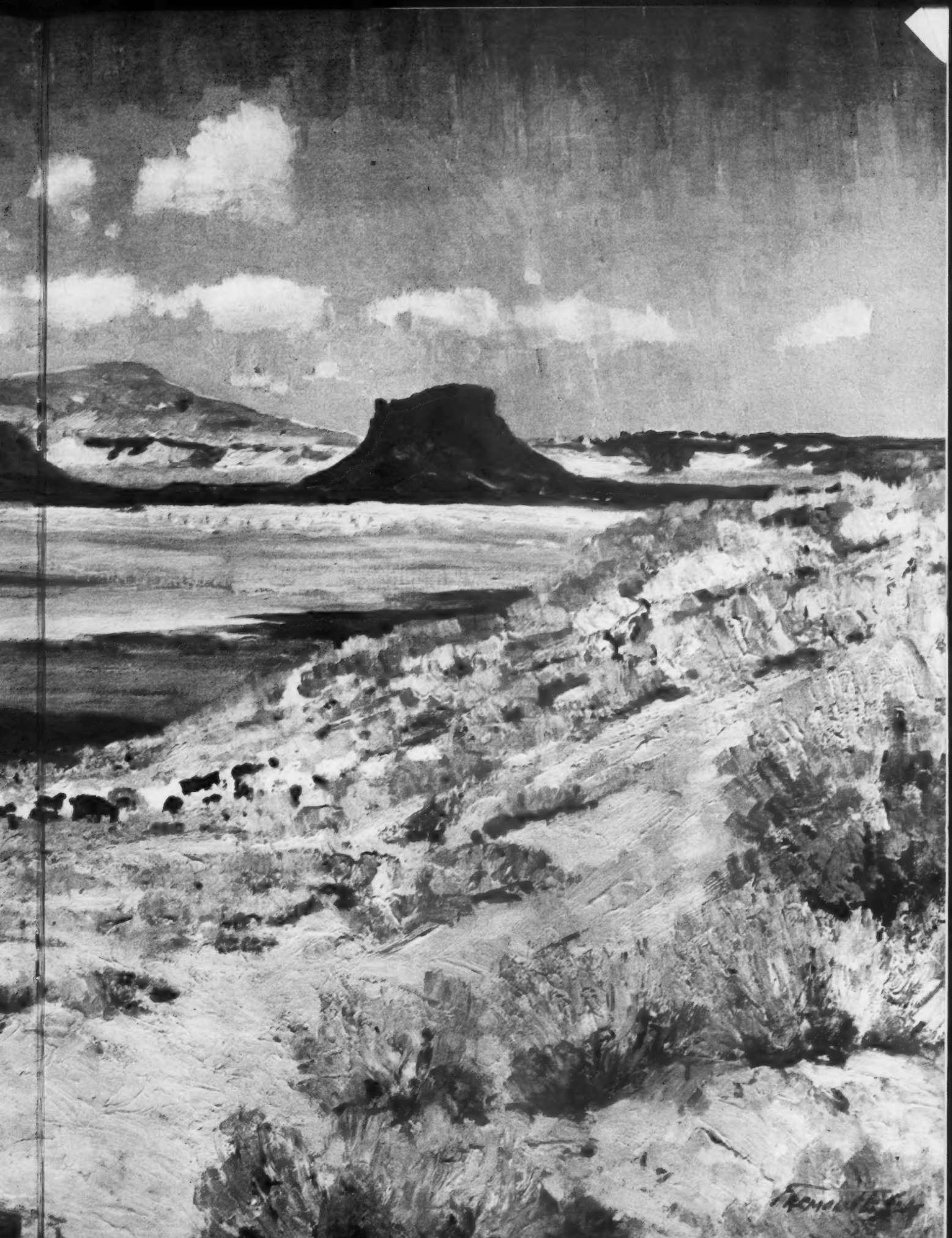


Service Station at Clovis

Navajo Country
by
Fremont Ellis

TO MANY PEOPLE, the most enthralling of all New Mexico's scenic areas is the vast and colorful desert country of the Navajo Indian Reservation. It is a timeless land of rugged beauty; silent, remote, and infinitely appealing. Artist Ellis (see page 24) has successfully captured the tranquil spirit of the desert in this oil painting, which he calls, simply, "Navajo Country."





Winter at Tesuque — *Miriam Hurford*

NEW MEXICO, MECCA FOR ARTISTS

ART, in various forms, has always occupied a prominent place in the lives of the people of New Mexico. Centuries before white men first laid eyes on this colorful country, Indian artisans were developing their own primitive art designs, borrowing from the forms and colors of the impressive scenery about them. Modern Indians of the area still carry on in the tradition of their ancestors, creating beauty in their pottery, their weaving, and other native handicrafts.

But white men, too, have found artistic inspiration in the natural beauty of the New Mexico country. Artists by the hundreds have been drawn to the "Land of Enchantment," and have remained there to live and work. Some have achieved national prominence, others are little known outside their own communities. The Santa Fe area, alone, counts some two hundred artists among its residents.

The visitor to New Mexico can hardly fail to notice that this is a land of art and artists. The evidence is before him at every turn. He sees excellent paintings of local scenes hanging in shops and stores, in hotel lobbies, in banks and public buildings, as well as in libraries and museums. Like the scenery that inspires it, New Mexico art is something for all to enjoy.

In choosing examples of the work of New Mexican artists for this issue of The Humble Way, the editors were confronted with a difficult task of selection. From scores of lovely and suitable paintings, they finally decided upon the Miriam Hurford water color, above, and the Fremont Ellis oil paintings reproduced on the front cover and centerspread. To the editors, these scenes seem to typify New Mexico in some of its most pleasing moods.

(Continued from page 10)

last year in Albuquerque, and W. C. Barnes, Assistant Western Division Sales Manager, was placed in charge of the New Mexico development.

The planned program calls for a gradual expansion of the marketing system, with distribution centers strategically located in various parts of the state and an adequate number of service stations to meet the needs of the public. Some stations in the southwestern area will be supplied from the new bulk station at El Paso.

The plan for 1956 is to establish four wholesale distribution centers—at Albuquerque, Clovis, Roswell and Farmington—and to complete more than 25 new Humble service stations in some 14 towns and cities. This program is already well underway. It reached the operational stage on January 28; when the first service station was formally opened in Clovis. Two weeks later, the first station in Albuquerque was opened with characteristic flourish, and on March 3 the people of Roswell were welcomed to the opening of their first new Humble station.

A bulk station is already in operation at Clovis, and one will soon open in Roswell. Additional service stations have been opened at Albuquerque and Clovis. Other station sites have been acquired by the Company, and some of these facilities are under construction.

By the end of this year, if everything goes according to schedule, there will be Humble service stations operating in: Santa Fe, Santa Rosa, Farmington, Roswell, Clovis, Albuquerque, Artesia, Tucumcari, Grants, Carlsbad, Las Cruces, Deming, Alamogordo, and Lordsburg. All these, of course, are in addition to the stations already doing business in Lea County.

Gasolines served to customers at most of these new Humble stations will be manufactured in New Mexico from New Mexico crude oil. This is made possible through the Company's contractual arrangements with local refiners who have the modern facilities necessary to manufacture gasolines to Humble's high quality specifications. The specified additives, such as Humble's exclusive solvent oil, will be shipped to the New Mexico refineries from the Company's Baytown Refinery.

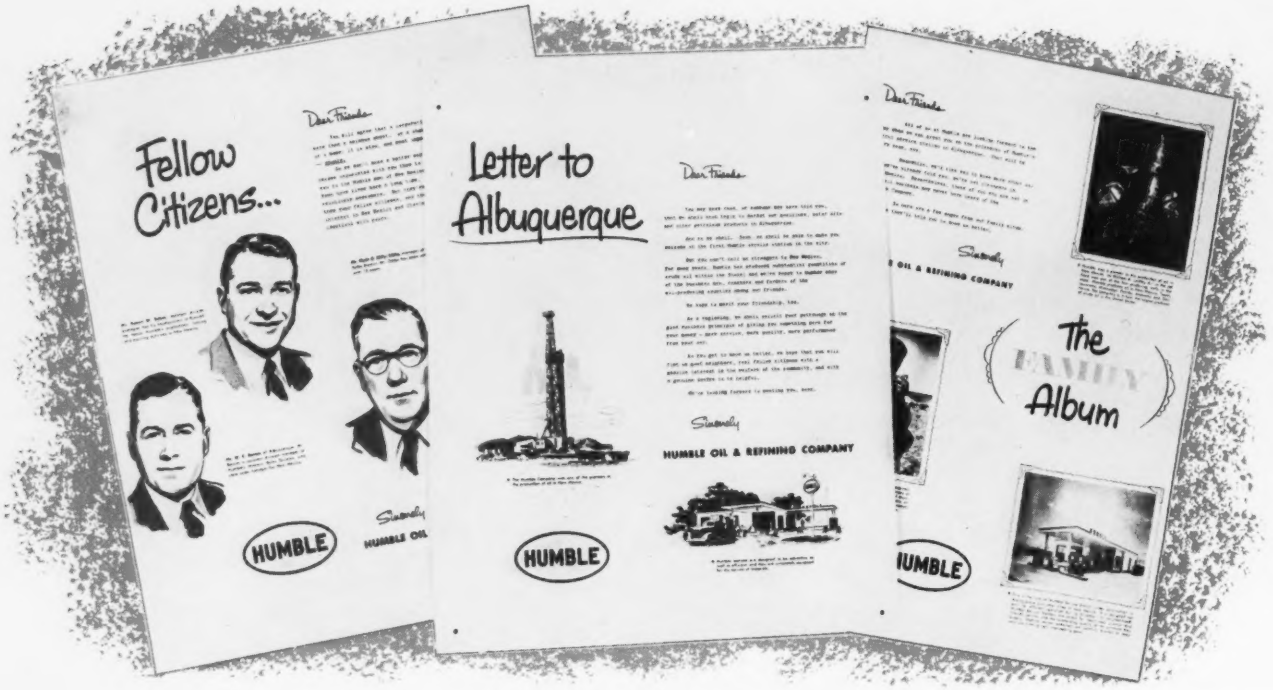
By this arrangement, the gasolines sold at Humble stations in New Mexico will give the same high standard of performance in customers' cars as the Humble gasolines made in the Baytown Refinery for Texas motorists.

In other ways, too, Humble stations in New Mexico will measure up to the Company's established high standards. Each of these new stations will be attractive and efficient in design, with the same distinctive features that have found favor with customers in Texas. And New Mexico motorists can expect the same clean restrooms and other marks of good service that have long characterized Humble stations in the Lone Star State.

To maintain this type of service, Humble designed its first Albuquerque station as a training station, with an extra bay which serves as a class room. Here, the men who will operate new Humble stations in New Mexico undergo an intensive training course in station management before they go out to take charge of their own stations.

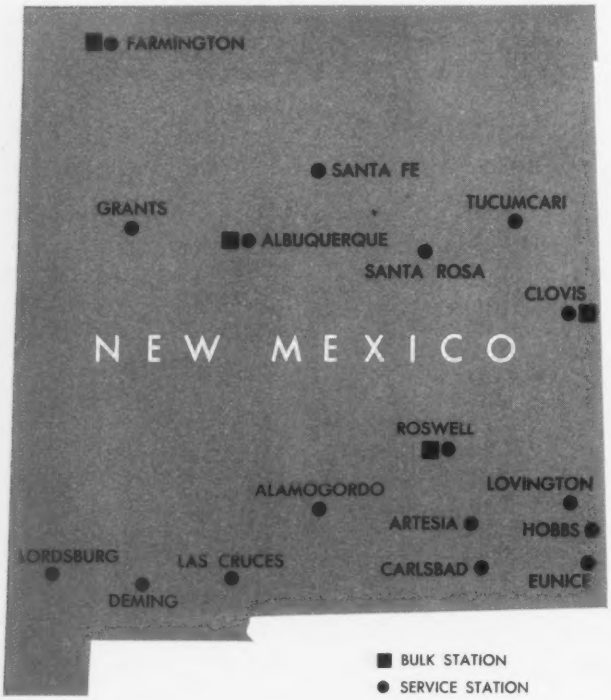
One of the first projects of Humble's Sales Department people on their entry into New Mexico was that of getting acquainted with the people. Although the Company has carried on exploration and production activities in the

First new service station to be opened in Humble's marketing expansion program in New Mexico was this one at Clovis. Within a few weeks initial stations had been opened in Albuquerque and Roswell. Additional stations are now in operation.



Newspaper advertisements like these help introduce Humble Company and its employees to residents of New Mexico areas where service stations are to be opened. Ads tell about the Company, its products, and its desire to be a good neighbor.

state since the 1920s, it has had little opportunity to make itself known there as a marketer of products. Therefore, long before the first service station was to be opened, Humble began an organized program of institutional promotion.



These seventeen New Mexico towns and cities will have Humble stations by end of the year, if planned schedule is carried out.

During the 1955 football season, for example, the Company sponsored play-by-play broadcasts over New Mexico radio stations of Southwest Conference games and all games played by the University of New Mexico. Humble also sponsored live telecasts of five Southwest Conference football games for viewers in New Mexico. All of these programs provided an excellent opportunity for the Company to tell its story to the people of its new marketing area.

Printed advertisements in newspapers and magazines and painted signs on the sites of future service stations also helped Humble gain public recognition. For weeks before the station openings in Clovis, Albuquerque, and Roswell, local newspapers in each city carried a series of advertisements in the form of friendly "letters" from the Humble Company. The gist of these messages was that Humble's new stations would offer good products and good service, and that the Company and its representatives wanted to win acceptance in the community as good neighbors and good citizens.

Further expressions of Humble's marketing aims and policies were presented by Company officials to business leaders of Clovis, Albuquerque, and Roswell at special luncheon meetings held in each city several days before the first service station openings. These luncheons were "get acquainted" meetings at which various members of Humble's Board of Directors and other spokesmen reviewed the Company's history and its methods of doing business.

As Frank A. Watts, Manager of Sales, told the business men's group at Albuquerque: "It is by offering products that are outstanding in quality, and well-trained people who will render complete and friendly service, that we hope to merit your confidence, your acceptance, and your patronage. We will strive at all times to be good citizens, and to contribute something to the growth and development of your state."

In chill of early West Texas morning, men and machinery wait for mercury to rise so that plastic can be applied properly. Barrels of Humble epoxy coating stand behind exposed end of four-inch line to be protected. Left, mounted air compressor.

PLASTIC PAINT PROTECTS PIPE LINES

Costly internal corrosion of in-place lines is being licked by a process of coating pipe walls with a rubbery armor

CORROSION experts long have been looking for a mythical little man with the following qualifications: He should be tiny—preferably Tom-Thumb size. He should be willing to work under the worst conditions—inside crude-oil corroded pipe lines down to two inches in diameter and up to 20 miles in length. His tools: a bucket, a brush. His job: paint pipe line interiors with a miracle coating as mythical as himself.

Ten years ago, internal corrosion control pioneers made jokes about such a godsend-employee but wrinkled their brows over ways to curtail costly inner corrosion. Now, they may have the next best thing in an encouragingly successful, though yet to be improved, in-place process using liquid plastic.

Since the 1920s, one of the biggest single write-offs to internal corrosion has been in the West Texas Permian Basin, where crude oil is sourest and makes lacework of the stubbornest steel. There, in the dry air and sand, external rust is a small factor; but when Humble Pipe Line Company placed new steel line in the ground, they expected to remove it a total loss three years later—eaten from the *inside out*. A typical year for corrosion loss was 1951, when thousands of barrels of oil were lost through 230 West Texas leaks. That year only 37 miles of line were protected internally in any way. But in 1952, with 295 miles of line protected, the number of leaks was sliced in half and the barrels of oil lost cut one-third.

Air pressure gauge-recorder used during process insures safety, aids operation.

Although the plastic coating process still is at the knee pants stage, it has played the major role in such saving with help from chemical inhibitors, cement-coated pipe, and other techniques. The method was tried experimentally as early as 1947; now several contractors are doing the work in the West Texas area. If hundreds of miles of pipe line protected by these companies can be called typical, internal corrosion may be on the run. Their methods are essentially the same.

The process itself is three-step: (1) Displacing the oil and cleaning the line. (2) Coating the line. (3) Drying the line. Common denominator for the job

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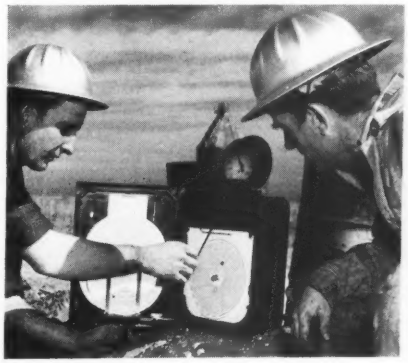

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Wads of cotton waste are shot through line as cleaning measure. Steel turnings, right, are sandwiched between cotton balls to scrape, scour corrosion from pipe line walls.

is air pressure. With it, cleaning agents are forced through the line to prepare it for the plastic coating. With the air, a column of liquid plastic, between two rubber plugs, is pushed downstream, smearing on the coating past the rear plug as it moves. With the air and chemical reaction, the plastic is hardened properly.

Let's follow a coating job from beginning to end with one of several contractors for Humble Pipe Line Company. Our line is a four-incher, two miles long and in the Means Field north of Andrews, Texas. It runs from a central battery to the trunk system and has been in the ground two years. Its leak record is not good. If left unprotected, the line probably won't be usable for more than another year.

Four men and two air compressor units—one to push the cleaning elements and later the plastic downsteam; the other to maintain back pressure—are used on this job. Special "pup-joints" to allow pressure build-up are attached to uncovered ends of the line.

Cleaning begins by running a rubber plug through the line to displace the standing oil. This operation resembles a tube moving down a pneumatic mail chute. On this two-mile line, each such trip will require 30 to 45 minutes. It *could* be sent faster but the back pressure prevents the pig from "running wild"; also, crooks and turns in the line tend to slow it.

Solvents, detergent solutions and wash water are then forced through the line by another plug to further cleanse the interior. Then follow alternate wads of waste cotton and steel shavings from a machine shop designed to dry the line and scour corrosion products from the pipe walls. On this job, the cotton starts to come clean by end of the first day.

To begin coating the next day, a rubber spreading plug is placed in the line. Behind it is pumped, after thorough mixing, enough Humble epoxy plastic coating for this job—150 gallons. Another plug is inserted behind the barn-red colored plastic to form a solid column of liquid about the consistency of molasses on a cold morning. As the column is air-blasted down the route, this liquid is squeegeed on the walls to a thickness of not less than 5, nor more than 9 mils (the thickness of a thin dime is just about right). When the plugs emerge at the other end, they are close together with little plastic in between.

By now, it's late afternoon of the second day and drying begins. Both ends of the line are capped and the air is bled off at a controlled rate, maintaining a positive pressure of about 40 pounds per square inch. The job will take most of the night.

Twenty-four hours after coating application, with luck, our coating job can be placed back in use. And it usually is, although a full week of natural curing is recommended as "ideal."

What about the probable results? Our two-mile line, in the last year of its life, should now be usable for six to ten years under normal corrosion conditions. The leaks will be few, if any. Cost of this job, at an average 40 cents per foot, will total about $4,000. The coating will pay for itself in oil saved alone in about two years; but counting pipe replacement and repair, welding, etc., the payout could come in a single year.

Is the system foolproof? Not by a long shot. Just when the plastic coating people get their processes down pat, a new

Liquid plastic is mixed thoroughly with chemical that activates it for spreading.

Plastic-soaked rear plug seals column of coating after it is pumped into the line.

Excess plastic is salvaged downstream; ideal operating surplus is ten per cent.

"bug" hatches. Most of these can be explained and remedied.

They've learned, for instance, that good atmospheric conditions—especially temperature—are important. Below 40 and above 100° F, it is practically impossible to apply and dry the coating properly.

Sometimes the rubber plugs come out bone dry, meaning the plastic hasn't been spread evenly. At other times, the bulk of the coating flows out with the plugs, indicating the coat has been spread too thin. Plugs of different diameter or varied pressures usually correct these evils.

The drying period is a very critical and sometimes unpredictable one. Dry too fast and you blast the coating off the walls. Dry too slow and it will run off the sides and jell in the bottom of the line.

Cleaning plugs sometimes lodge in the line and can't be forced loose even with the highest compression. In the early days of 1948, lines had to be cut in several places during the search. Now, a radio-active cobalt 60 capsule is attached to the trailing plug. If it sticks, the plug can be traced by walking down the line with a Geiger Counter.

Improvement of coating material would seem to be the cure for most of the infant industry's ills. The two basic materials, both organic compounds, have names meaning little or nothing to the average reader—vinyls and epoxies. Neither has proved completely predictable. Vinyls are older, having as much as eight years service in crude oil, fresh water, salt water and natural gas lines. Epoxy coatings, such as Humble's Epoxy Internal Pipe Coating, have up to three years' service in similar use. Advantages of the latter include easier application and ability to withstand temperatures up to 250° F. But there's still plenty of room for improvement.

Is interior plastic coating cheap? No, but it's more economical than unchecked corrosion. Used six-inch pipe can be cleaned and coated for 35c to 55c a foot. Replacing it with new pipe, including laying costs, would run several times that much. Actual case studies help illustrate why Humble Pipe Line plans to coat all of its in-place sour crude oil lines in West Texas in the future.

To illustrate durability of the coating, a Humble line in West Texas is typical: The line of 2,774 feet was laid in October, 1939, using 4-inch pipe. The leak history was unavailable but during the cleaning and coating in April, 1948, 27 leaks occurred and three joints of pipe were replaced. Since coating, the line has been inspected at intervals and, though poorly bonded to the pipe, the coating is still intact and flexible. And there hasn't been a single leak in the line in the past eight years!

Overall, Humble Pipe Line owns about 109 miles (representing 10.4 per cent of their total West Texas system) of internally coated pipe. From 1945 to the time they were protected, these lines sprang 253 leaks. With the exception of two improperly coated lines, there have been no leaks in these lines chargeable to internal corrosion since coating!

The plastic coating process already in use is a good, if not a perfect one. And further improvements seem just around the corner. Better cleaners are being developed; a phosphoric acid rinse still in the labs should remove corrosion products and leave a good adhesive surface.

Coating materials should see continued change. One of these should allow application at almost any temperature without fear of improper jelling. An internal device to indicate breaks or inadequate spreading of the coating should be in use soon. Called a holiday detector, this instrument would be forced along the line like rubber cleaning and coating plugs.

When and if these improvements come, most of the old bugaboos will be eliminated and internal plastic coating of in-place pipe lines will be, by all odds, a relatively surefire process.

And the mythical little man, for all corrosion engineers care, can take his bucket and brush and retire.

Success of the job is checked with mirrored sunlight after overnight drying; goal is a smooth, even spread on all pipe line walls without breaks, bubbles, or pinholes.

President Baker advocates a safety consciousness that will lead to full public support of all safety efforts.

HUMBLE PRESIDENT KEYNOTES SAFETY CONFERENCE

Hines H. Baker pays tribute to those responsible for progress, urges full support of safety programs

HUMBLE President Hines H. Baker accepted an invitation to deliver the keynote address at the 17th Annual Texas Safety Conference and the Governor's Highway Safety Conference, held in Dallas on March 26-27.

"We owe a debt of gratitude to the people who work toward safety," Mr. Baker told a capacity audience of some 750 people. "Safety is a never-ending process of discipline, encouragement, and training people toward safety-consciousness and a will to prevent accidents."

Mr. Baker paid full tribute to industrial leaders, supervisors, safety staffs, and employees for the great progress made in lowering the incidence of industrial accidents. "One encouraging note," he said, "lies in the fact that only 15 per cent of deaths caused by accidents occur in industry, where caution is the rule, rather than the exception. Although considerable progress can still be made in industrial safety, this already good record shows that safety can become an acquired trait."

According to Mr. Baker, development of industry safety programs should include emphasis on good housekeeping, guarding moving machinery, use of personal protective equipment, strict adherence to safety practices and codes, supervisory training and safety meeting programs, and the creation of an attitude of safety consciousness.

HUMBLE WINS FOUR TOP AWARDS

Four awards won by Humble are held, l. to r., by C. A. Morris, for Gas Operations; H. G. Patrick, for Exploration; E. C. McFadden, President of T.S.A., who holds Drilling award; and F. A. Watts, for Sales.

HUMBLE WON four of the top awards presented at the Industrial Awards Luncheon on Tuesday, March 27. The four winners were:

- **Drilling,** with 540 people, 1,160,448 man-hours worked, 20 accidents, and a frequency rate of 17.23.
- **Sales,** with 1,037 people, 2,083,404 man-hours worked, one accident, and a frequency rate of .48.
- **Gas Operations,** with 788 people, 1,437,189 man-hours worked, one accident, and a frequency rate of .70.
- **Exploration,** with 1,154 people, 2,218,872 man-hours worked, two accidents, and a frequency rate of .90.

These four awards brought to 37 the total number received by Humble during the 8-year history of the Texas Industrial Safety Contest. The Sales Department has won in each of the eight years for a perfect record. Drilling has won six times; Gas Operations, six times; Refining, six times; Exploration, four times; Producing Operations, four times; the Rubber Plants, twice; and Humble Pipe Line Company, once.

Declaring that "The accident problem presents one of our most critical social problems, and needs the best our citizens can offer to reduce accidents to a minimum," Mr. Baker devoted some time to the traffic problem.

"The Texas Safety Association, the Department of Public Safety, the Highway Department, and our law enforcement agencies are all doing a good job with the facilities at their disposal, in spite of increased traffic and advanced car design," he said. "Our job, then, is to give these people all the support we can to encourage fuller understanding on everyone's part of the need for public participation in the overall program. Our people need all the education we can give them in protecting themselves and others. A conditioned attitude for safety is needed—a general attitude of alertness to prevent traffic accidents. This is the key to safety."

Mr. Baker pointed out that accident prevention programs in schools have contributed toward increased safety. He added, however, that only one-third of our schools have accident prevention programs. He urged public support to insure that all schools have such programs.

Mr. Baker was especially concerned with accidents as a killer of children. He pointed out that 11,121 children between the ages of one and 14 were killed in the United States by accidents in 1952—more than the aggregate for the next nine leading causes of death among children, and ten times as many as were killed by polio. This, he suggested, indicated the need for more safety education in the home, as well as in the schools.

"It is saddening to learn that 5,366 men, women, and children were killed in Texas accidents last year, that 542,250 were injured, 19,768 permanently, with a monetary loss of $547,896,841," Mr. Baker reported.

In closing, Mr. Baker emphasized that "The problem of accident prevention is of such tremendous importance that it constitutes a high challenge to the citizenship of the State to develop and maintain a safety attitude—a safety consciousness that will lead to full public support of all efforts for safety."

Reistle is New AIME President

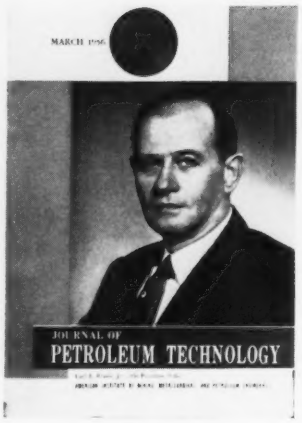
Humble Vice President Carl E. Reistle, Jr. has been installed as 1956 president of the American Institute of Mining, Metallurgical and Petroleum Engineers, professional society of engineers in all mineral industries. Installation ceremonies were held February 21 at the organization's annual meeting in New York.

Featuring the new AIME president in the March issue of the *Journal of Petroleum Technology,* Executive Publisher Joe B. Alford described him as "a respected executive in the oil industry and a man of distinctive personal and professional achievements."

The article pointed out that Mr. Reistle is the sixth president of the Institute to represent the petroleum membership. The writer recalled that "Carl Reistle has been active in AIME and professional work during his entire career. He attended his first AIME meeting in 1924, presented his first paper before the Petroleum Division in 1927, and has since been one of the strongest advocates of the Institute."

After reviewing the Humble executive's career and accomplishments, publisher Alford commented:

"Carl Reistle characterizes the modern corporate executive: intellectual acumen, calm temperament, sound judgment, and the ability to assimilate the complexity of big business. Yet, a corporation is more than assets and balance sheets to him—it is people. He is genuinely concerned with the welfare of the people all up and down the line in a company, and is intensely loyal to those who work for and with him."



Carl E. Reistle, Jr. on Journal Cover.

Ferguson to Head United Fund Drive

H. W. Ferguson

Harry W. Ferguson, vice president and director of Humble Oil & Refining Company, has been appointed chairman of the 1957 United Fund campaign in Houston and Harris County.

As general chairman, Mr. Ferguson will head a group of more than 6,500 volunteer workers in the biggest campaign of the Fund's six-year history. The money raised will help support 54 separate health, welfare, and character-building agencies in this area.

Mr. Ferguson, director of Humble's Refining and Sales, is a veteran campaigner, having served in numerous Community Chest and United Fund drives. Last year, he was in charge of the Special Gifts Division.

Dr. Baird Installed as President of TIMA

Dr. V. C. Baird

Valliant C. Baird, M. D., chief physician of Humble Oil & Refining Company, was installed as president of the Texas Industrial Medical Association in Dallas on April 6. Dr. Robert A. Wise, assistant chief physician with the Company since 1952, was installed as secretary-treasurer of the group.

Physicians who are actively engaged in providing medical services to industry formed the association about a year ago. Organization of TIMA and the creation of the Council on Industrial Health by the Texas Medical Association illustrate the medical profession's increasing awareness of the need for preventive medicine in industry.

Dr. Baird is chairman of the Council on Industrial Health of the Texas Medical Association as well as a member of the Council on Industrial Health of the American Medical Association. He came to Houston in 1935 as assistant chief physician of Humble. He was named chief physician of the Company in 1944.

Gulf Coast Division Safety Record

People in the Gulf Coast Division of Humble Oil & Refining Company established a new safety record for the division when they reached two million manhours worked without a disabling injury on February 1.

This is the first time on record in the Company that a Production Department division has reached this mark in all operations. About 1600 individuals worked from July 7, 1955, to February 1, 1956, to achieve this goal.

Several groups in the division have marked up outstanding records in safety. Of the 18 production districts, gas plants, and gas systems in the division, Lovell Lake Production, Anahuac Production, and Tomball Gas System each worked more than one million man-hours since its last disabling injury.

The Katy Gas Cycling Plant completed 3,765,498 cumulative man-hours on the job without a disabling injury. Of the eight Company rigs in the division, Rigs 22 and 27 have each operated more than six years, Rigs 3, 30, and 31 reached two years, and Rigs 1 and 9 worked one year without loss of time due to injury.

Humble Way Art On Exhibit

A collection of Texas historical sketches by Houston artist E. M. Schiwetz is now on display at the San Jacinto Museum of History. These sketches appeared originally in THE HUMBLE WAY to illustrate historical articles written by Frank Fields. Later the illustrations and stories were collected and published as the TEXAS SKETCHBOOK. The group consists of a series of pencil sketches on Old Texas Homes, The Texas Navy, Wanderings of Cabeza de Vaca, Sam Houston's Retreat to Victory at San Jacinto, and the Frontier Forts of Texas.

Humble has loaned the collection to the San Jacinto Museum for a six-months display in the Anglo-American Room.

E. M. Schiwetz; Mrs. David Knepper, Director of San Jacinto Museum; and Frank Fields.

A group of new paintings by Artist Schiwetz were shown in Dallas during March at the Dallas Public Library.

Laboratories Set World Record

Baytown Refinery Laboratories marked up a new world-wide safety record for petroleum laboratories April 14 when they completed nine years without a disabling injury.

Employees of this Refinery group received acclaim from the National Safety Council and the American Petroleum Institute for a total of 8,875,797 accident-free man-hours worked during the period. In setting this new record, these employees beat a previous record of 7,790,518 man-hours established by a middle western oil company laboratory.

Recent Retirements

HUMBLE PIPE LINE COMPANY

Name	Location	Date of Retirement	Years of Service
William M. Beardsley	Refugio Station	March 9	30
George J. Flynt	Groesbeck Station	April 20	24
Bernard B. Hale	Harbor Island	March 27	20
George A. Lee	Longview	March 19	34
PRODUCTION DEPARTMENT			
Deane A. Blakeney	Wasson	April 5	22
Bryant Bonetti	Goose Creek	March 6	34
Robert Cravey	London	March 16	33
Willie Y. Jones	Pickton	April 7	26
William C. McManus	Maurbro	March 12	28
Jesse C. Pugh, Sr.	Pledge Gas System	April 19	29
Moody C. Smith, Sr.	London	April 16	36
Warren C. Thackston, Sr.	London	February 22	29
Albert H. K. Veness	East Texas Div. Gas Plant	March 24	26
James W. Wood	Tomball	February 26	31
Otto W. Wyatt	Avoca	March 22	35

BAYTOWN REFINERY

Cyril P. Blanchard	Pipe Department	March 31	35
Hubbard W. Carter	Process General	April 3	35
Oscar L. Chavers	Machinist	February 20	36
Davis Cook	Operator	April 3	29
Aff L. Greer	Labor—Special	March 16	26
Frederick W. Hesse	Shift Supervisor	April 12	35
Marlin Lee	Distillation Department	March 1	32
Harvey H. Morris	Light Oil Treaters	March 1	33
Jerry P. Ulch	Paint Department	March 6	36
Chester E. Wyatt	Welding Supervisor	March 14	30
HOUSTON OFFICE			
James E. LaRue	Exploration Geophysics	January 20	33
Raymond V. Loftin	Comptroller's	April 2	35
Juanita S. Stanford	PL-Operating	March 5	30
Hubert L. Stone, Sr.	Tax Division	March 1	36
Edgar Smith	Houston Package Terminal	April 19	34

Deaths

Employees: Shelton O. Canon, 53, instrument technician at Baytown Refinery, on March 31; Royce L. Compton, 47, engineer at Ingleside Station, on February 14; Robert J. Cooke, 56, relief pumper at Baytown Refinery, on March 16; Emory T. Corbett, Sr., 58, division chief gauger at Midland, on March 21; Rosa L. Counts, 52, clerk-stenographer in the Houston Office, on January 26; Albert A. Dierlam, 57, motorboat foreman in Houston, on February 9; William A. Drake, 58, gas plant superintendent at Tomball Gas Plant, on February 23.

Dickson W. Enloe, 54, helper at Baytown Refinery, on January 26; Thomas S. Foster, 59, communications and electrical maintenanceman at Longview Connection, on March 23; William E. Gentry, 60, station foreman at Webster, on February 20; Wilbur J. Guilliot, 35, rotary fireman at Paradis, Louisiana, on March 11; Fred Hirtzler, 61, chief operator at Baytown Refinery, on March 2; Johnnie T. Johnson, 51, roustabout derrickman at London, on January 24; Claude W. Jolly, Jr., 38, rotary fireman at Goose Creek, on February 23.

Julius F. Klasing, 44, instrument repairman at Baytown Refinery, on February 3; Walter B. Montgomery, 52, brickmason at Baytown Refinery, on March 23; John H. Nelms, 39, gas plant operator at Opelousas Gas Plant, on February 25; Roy C. Newsom, 48, division communications and electrical maintenanceman at McCamey, on January 26; Venton C. Parker, 39, helper at Baytown Refinery, on January 20; Allen O. Thomas, 51, pipeliner at Hawkins, on February 6.

Annuitants: Ettore J. Bucci, 62, former brickmason at Baytown Refinery, on March 27; Robert G. Farra, 73, former gangpusher at Baytown Refinery, on March 3; James J. Hill, 65, former helper at Baytown Refinery, on March 16; Adolph R. Hoffman, 62, former machine shop foreman at London, on January 28; Robert S. Isbell, 81, former lease pumper-gauger at London, on February 23; Sutherland Ragland, 72, former boilermaker at Baytown Refinery, on March 27.

Behind this issue

● Fremont Ellis, the talented New Mexico artist who painted the scenes on the front cover and centerspread of this issue, is a soft-spoken, friendly fellow such as you would like to have as a next-door neighbor. In his amiable manner you will detect none of the extroverted brashness of a vaudeville trouper (which he once was), nor the tempestuous temperament of a sensitive artist (which he is).

Fremont Ellis

Ellis was born into a theatrical family and spent most of his early years traveling the vaudeville circuits all over the country. His interest in art was born, full-blown, when as a lad of 15 his mother took him into the Metropolitan Museum of Art in New York. From that day his future was decided. Although he tried other vocations spasmodically for a while, he finally and inevitably settled down to a career of painting.

In Santa Fe, where he has lived for many years, Ellis is known as one of *Los Cinco Pintores*. That is a group of five early artists of the community whose works have attracted widespread attention, and have won favorable comment in several books on American art. He is perhaps best known for his beautiful aspen paintings, but, as the scenes reproduced in this issue prove, Fremont Ellis has a versatile brush, capable of depicting any subject in his beloved New Mexico.

● To Miriam Story Hurford, who painted the water color on page 14, art is both a vocation and a hobby. She and her husband, Arch Hurford, are successful partners in commercial art, specializing in illustrating books and trade books. They moved to Santa Fe from Chicago five years ago and built a home and studio in nearby Tesuque Valley. Here, surrounded by the natural beauty of the New Mexico landscape, Mrs. Hurford often obeys the impulse to paint for her own pleasure the scenes about her. The water color reproduced in this issue is her favorite. "I am happy that this particular one has found a happy home," she writes.

Like most busy people, Mrs. Hurford has many interests. In the studio where she and her husband do their painting there is also a large loom upon which she weaves beautiful designs. And adjoining her home is a greenhouse where she proudly shows visitors her collection of rare and beautiful cactus plants.

We wanted a picture of Mrs. Hurford to publish with these comments, but she begged off. "I have always taken a very dim view of that sort of thing," she explained.

● For a while there in mid-April it was nip and tuck whether we would be able to run the picture story of Humble Derrick Barge No. 1 in this issue. Our staff writer and photographer had a close deadline staring them in the face when they set out to see the big barge perform its first platform building job.

Unfortunately, the weather cared not one whit for deadlines. First, a brisk south wind whipped up the waves, and the DB-1 had to tie up for the night near Grand Isle. Next day, after the barge had been towed to the location, the wind shifted to the north and freshened. The seas ruffled again, and the construction project was stymied. The weatherman predicted more of the same. So, the harried *Humble Way* staffers returned to their home office and went to work with what they had. They prepared the article on pages 5-7, leaving a hole in the layout for the final picture.

Several days went by and the Grand Isle District headquarters still reported rough seas and continued delay. Finally, the break came. The sun shone on calmer seas. The barge resumed work; photographer Tommy Nowlin was able to shoot his concluding picture, and it was rushed to the engraver's shop in the nick of time.

The Humble Way

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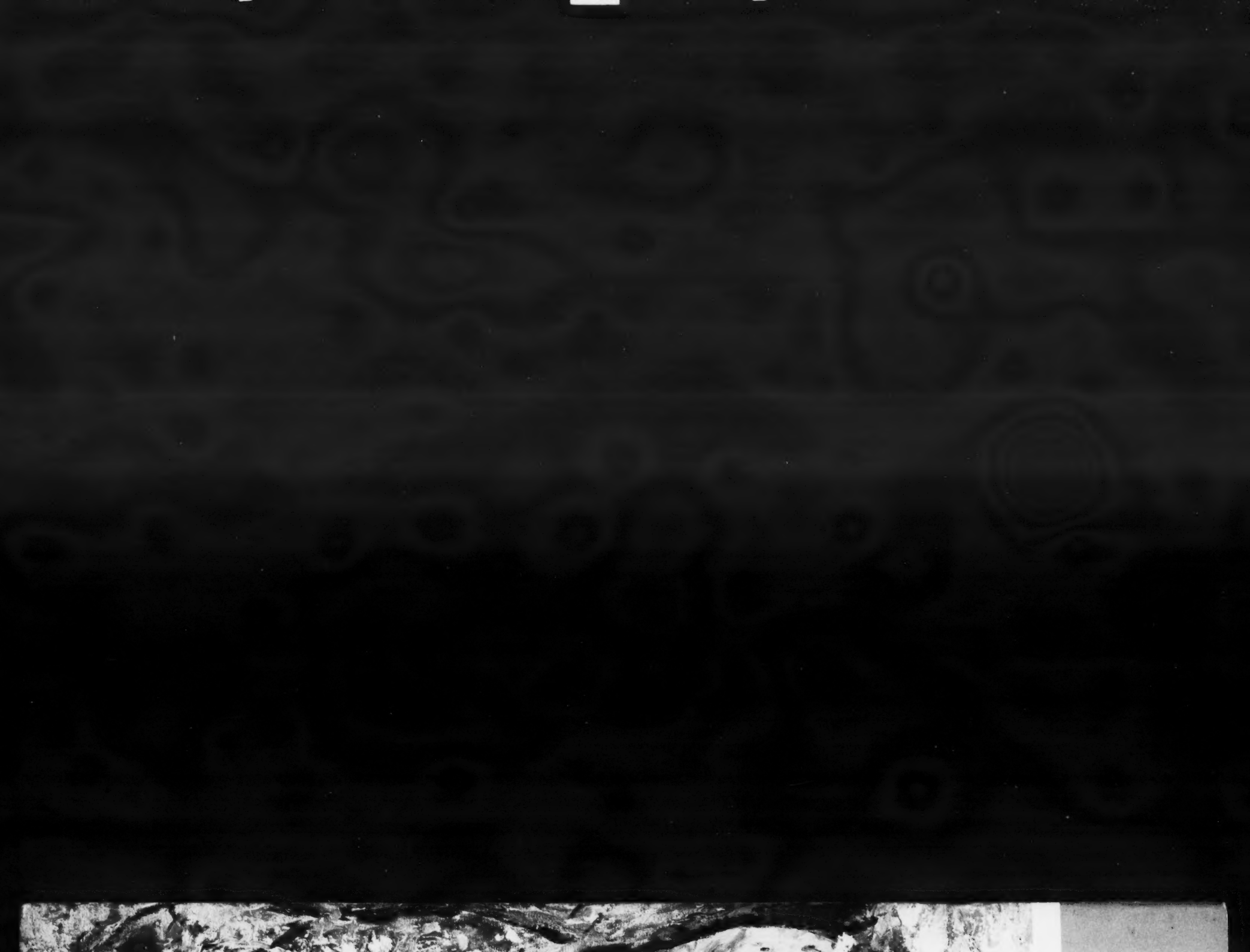
Houston's impressive and still-growing business district is shown in this aerial view. Humble's Main Office Building stands at far right. Expressways help smooth traffic flow.

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